


		NTSB ID: DEN03LA013		Aircraft Registration Number: N9288M	
		Occurrence Date: 11/03/2002		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Broomfield	State CO	Zip Code 80020	Local Time 1734	Time Zone MST	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Mooney		Model/Series M20E		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On November 3, 2002, at 1734 mountain standard time, a Mooney M20E, N9288M, registered to and operated by the pilot, was substantially damaged when it exited the runway and collided with a drainage ditch during landing at Jeffco Airport, Broomfield, Colorado. The private pilot and two passengers were uninjured. Visual meteorological conditions prevailed, and no flight plan had been filed for the personal flight being conducted under Title 14 CFR Part 91. The local flight originated at Broomfield approximately 1600.</p> <p>The following is based on telephone conversations with the pilot and his accident report. He said he made a full flap landing on runway 29R. Instead of keeping the nose wheel off the runway, he relaxed elevator back pressure. When the nose wheel contacted the runway, the airplane swerved to the left. The pilot attempted to straighten the airplane using right rudder and brakes, but to no avail and he lost directional control. The airplane went off the runway and traveled across snow-covered grass. The right main and nose landing gears collapsed, and the airplane slid to a halt on the upslope side of a drainage ditch parallel to the runway.</p> <p>According to a Beegles Aircraft Services employee who examined the airplane, he found "the steering horn attach bolt sheared at the nut end and the bolt head was slightly backed away from the nose gear truss where it attaches." The employee noted that the sheared AN3-20A bolt was supposed to have "been replaced by a NAS623-3-29 screw as per Mooney Service Bulletin M20-169, dated July 18, 1968. This had not been accomplished. No discrepancies were noted...with the brakes." It could not be determined if the bolt had sheared prior to or upon touchdown or during the impact sequence.</p> <p>In a subsequent telephone conversation, the pilot said that in retrospect he thought he could have minimized the damage to his airplane. Instead of relaxing elevator back pressure after the airplane touched down, he should have held the nose wheel off the runway as long as possible. In so doing, speed would have dissipated and he could have kept the airplane on the runway by using differential braking.</p> <p>According to Rocky Mountain Straight Flight, the facility assigned by the pilot to repair the airplane, damage consisted of collapsed right main and nose landing gears, buckled wing and nose gear attach points, firewall, several wing ribs, and crushed wing tips and tail cone.</p>					
FACTUAL REPORT - AVIATION					

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN03LA013			
		Occurrence Date: 11/03/2002			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name Jeffco Airport	Airport ID: BJC	Airport Elevation 5670 Ft. MSL	Runway Used 29R	Runway Length 9000	Runway Width 100
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach: NONE					
VFR Approach/Landing: Full Stop; Traffic Pattern					
Aircraft Information					
Aircraft Manufacturer Mooney		Model/Series M20E		Serial Number 1221	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 4	Certified Max Gross Wt. 2575 LBS		Number of Engines: 1	
Engine Type: Reciprocating	Engine Manufacturer: Lycoming		Model/Series: IO-360-A1A	Rated Power: 200 HP	
- Aircraft Inspection Information					
Type of Last Inspection Annual	Date of Last Inspection 06/2002	Time Since Last Inspection 57 Hours		Airframe Total Time 4330 Hours	
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No		ELT Aided in Locating Accident Site? No		
Owner/Operator Information					
Registered Aircraft Owner Paul F. Hahn		Street Address On File			
		City Wheat Ridge	State CO	Zip Code 80033	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Personal					
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First Pilot Information																																																																																				
Name		City		State	Date of Birth	Age																																																																														
On File		On File		On File	On File	53																																																																														
Sex: M	Seat Occupied: Left	Principal Profession: Unknown		Certificate Number: On File																																																																																
Certificate(s): Private																																																																																				
Airplane Rating(s): Single-engine Land																																																																																				
Rotorcraft/Glider/LTA: Glider																																																																																				
Instrument Rating(s): None																																																																																				
Instructor Rating(s): None																																																																																				
Type Rating/Endorsement for Accident/Incident Aircraft?			Current Biennial Flight Review? 09/2002																																																																																	
Medical Cert.: Class 3		Medical Cert. Status: Valid Medical--no waivers/lim.		Date of Last Medical Exam: 02/2002																																																																																
<table border="1"> <thead> <tr> <th rowspan="2">- Flight Time Matrix</th> <th rowspan="2">All A/C</th> <th rowspan="2">This Make and Model</th> <th rowspan="2">Airplane Single Engine</th> <th rowspan="2">Airplane Multi-Engine</th> <th rowspan="2">Night</th> <th colspan="2">Instrument</th> <th rowspan="2">Rotorcraft</th> <th rowspan="2">Glider</th> <th rowspan="2">Lighter Than Air</th> </tr> <tr> <th>Actual</th> <th>Simulated</th> </tr> </thead> <tbody> <tr> <td>Total Time</td> <td>138</td> <td>27</td> <td>88</td> <td></td> <td>6</td> <td></td> <td>4</td> <td></td> <td>50</td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td>62</td> <td>27</td> <td>52</td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td>10</td> <td></td> </tr> <tr> <td>Instructor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td>37</td> <td>27</td> <td>37</td> <td></td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>18</td> <td>18</td> <td>18</td> <td></td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air	Actual	Simulated	Total Time	138	27	88		6		4		50		Pilot In Command(PIC)	62	27	52		3				10		Instructor											Last 90 Days	37	27	37		3						Last 30 Days	18	18	18		2						Last 24 Hours										
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Seatbelt Used? Yes		Shoulder Harness Used? No		Toxicology Performed? No		Second Pilot? No																																																																														
Flight Plan/Itinerary																																																																																				
Type of Flight Plan Filed: None																																																																																				
Departure Point		State	Airport Identifier	Departure Time	Time Zone																																																																															
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Type of Clearance: VFR																																																																																				
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Weather Information																																																																																				
Source of Briefing: Unknown																																																																																				
Method of Briefing: Unknown																																																																																				


 National Transportation Safety Board FACTUAL REPORT AVIATION			NTSB ID: DEN03LA013		
			Occurrence Date: 11/03/2002		
			Occurrence Type: Accident		

Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
BJC	1745	MST	5670 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Few			20000 Ft. AGL		Condition of Light: Night/Dark
Lowest Ceiling: None			Ft. AGL	Visibility: 40 SM	Altimeter: 30.19 "Hg
Temperature: -1 °C		Dew Point: -12 °C	Wind Direction: Variable		Density Altitude: 4764 Ft.
Wind Speed: 4		Gusts:	Weather Conditions at Accident Site: Visual Conditions		
Visibility (RVR): Ft.		Visibility (RVV) SM	Intensity of Precipitation:		
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information					
Aircraft Damage: Substantial		Aircraft Fire: None		Aircraft Explosion: None	
Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers				2	2
- TOTAL ABOARD -				3	3
Other Ground					
- GRAND TOTAL -				3	3

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	Occurrence Date: 11/03/2002	
	Occurrence Type: Accident	
Administrative Information		
<p>Investigator-In-Charge (IIC)</p> <p>Arnold W. Scott</p>		
<p>Additional Persons Participating in This Accident/Incident Investigation:</p> <p>Donald F McMahon Training Program Manager FAA Flight Standards District Office 26805 East 68th Avenue, Suite 200 Denver, CO 80249</p>		
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